

Curriculum Information for Parents

Key Stage 5 Physics: A level Physics

Learning Leader Contact Information		Phone: 01604 862125 or 01908 563468	Email: Lindsey.newman@ewsacademy.org.uk
Examination Board	OCR	Specification Code	H556

Subject Content

Module 1 – development of practical skills in physics

This includes planning, implementing, analyzing and evaluating practical work. The common practical skills are teacher assessed in this module. This module takes place through all teaching over the 2 years.

Module 2 – foundations of physics

This unit is the true foundations of physics; SI units, physical quantities, scalars and vectors, measurements and uncertainties.

Module 3 – forces and motion (taught at Sponne with Mr Notley and EWS)

This unit covered motion including the SUVAT equations, projectile motion and motion in fluids as well as density and pressure, moments and equilibrium. It also covered energy and power, materials including springs, and momentum and collisions.

Module 4 – electrons, waves and photons (taught mostly at EWS with some Sponne Mr Massey)

Circuits and their properties and measurement of them were covered in this topic this included, drift velocity, e.m.f and p.d. resistance, resistivity and internal resistance. The waves sections covered electromagnetic waves, superposition and standing waves. Quantum mechanics is also covered in this module looking at wave-particle duality, the photoelectric effect and the particle nature of light.

Module 5 – Newtonian World and astrophysics

Thermal physics including gases, circular motion, oscillations, gravitational fields, astrophysics and cosmology are covered in this module.

Module 6 – Particles and medical physics

Capacitors, electric and magnetic fields, fundamental particles, radioactivity, fission, fusion and medical imaging are covered in module 6.

Additional Equipment Required: Students require a scientific calculator.

Assessment Details

Modelling Physics (37% of total) 100 marks 2hours 15 minutes covers units 1, 2, 3 and 5

Exploring Physics (37% of total) 100 marks 2hours 15 minutes covers units 1, 2, 4 and 6

Unified Physics (26% of total) 70 marks 1 hour 30 minutes covers all units

Practical Endorsement in Physics is non examined, this unit is teacher assessed in all of the practical work that takes place during the course. Students are awarded a pass/fail independently of their exam achievement.

What can I do to support my child at home?

- Ensure that all homework, notes and assessment preparation is completed on time.
- Encourage them to attend lectures, talks or visits to scientific institutions for example the monthly Open University lectures or an open day at the Rutherford Appleton Laboratory.

Curriculum Information for Parents

Recommended resources for the course:

Books

- OCR textbook (ISBN 9780798352174)
- Revision guide (e.g. CGP 978-1789080391 or Pearson 978-1447984382)

Websites

- Physics and Maths tutor (<https://www.physicsandmathstutor.com/>)
- A level physics online (<https://www.alevelphysicsonline.com/>)
- Physics Net (<http://physicsnet.co.uk/a-level-physics-as-a2/>) based on old specification but the physics is the same.

Teaching Staff Contact Details

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Additional information: